Repair Work on NC 12 at the Pea Island National Wildlife Refuge Breach Site

On August 27, 2011 Hurricane Irene severely damaged and breached NC 12 at various locations including four (4) breaches at the Pea Island National Wildlife Refuge. In order to reconnect the road for traveling public and facilitate recovery efforts, the Department of Transportation is proposing a 650 foot temporary bridge over the new cut channel (200 +/- feet wide), 1,300 linear feet of sheet piling, and 1,600 linear feet of sand bags and 10,000 +/- cubic yards of local sand from Oregon Inlet Groin site.

The temporary bridge is warranted, since ebb flow in the 200 foot new cut channel is around 10 feet per second and depth of flow is approximately 10 feet. It is anticipated that the temporary bridge will be used approximately 18 months. In order to erect the temporary bridge, a 200 foot work bridge may be required for the construction equipment. In order to stabilize the roadway embankment and keep the end bents of the temporary bridge and the embankment fills within existing DOT right of way and minimize the impact to the coastal wetlands, sheet piling and sand bags are recommended, as noted in the attached plans.

The NCDOT has coordinated with the Pea Island National Wildlife Refuge and received a Special Use permit for this repair and for the sand source from the Oregon Inlet Groin site. The existing damaged asphalt will be removed and temporarily stored at a nearby borrow pit (upland location), until an approved upland waste site is determined.

and/or Avon site
DSC

DCM MP-1

APPLICATION for Major Development Permit

(last revised 12/27/06)

North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information

Business Name		Project Name (if applicable)		
NCDOT		NC 12 Repair Pea Island		
Applicant 1: First Name	MI	Last Name		
Jerry		Jennings		
Applicant 2: First Name	MI	Last Name		
If additional applicants, please attach an additional page(s) with names listed.				
Mailing Address		PO Box	City	State
113 AIRPORT DRIVE, SUITE 100			EDENTON	NC
ZIP	Country	Phone No.		FAX No.
27932	USA	252-482-7977 ext.		- -
Street Address *(if different from above)*		City	State	ZIP
				-
Email				
JJENNINGS@NCDOT.GOV				

2. Agent/Contractor Information

Business Name				
Agent/ Contractor 1: First Name	MI	Last Name		
Agent/ Contractor 2: First Name	MI	Last Name		
Mailing Address		PO Box	City	State
ZIP		Phone No. 1		Phone No. 2
		- - ext.		- - ext.
FAX No.		Contractor #		
Street Address *(if different from above)*		City	State	ZIP
				-
Email				

<Form continues on back>

3. Project Location

County (can be multiple)	Street Address	State Rd. #
DARE	NC 12	NC 12

Subdivision Name	City	State	Zip
N/A	PEA ISLAND WILDLIFE REFUGE	NC	- 27968

Phone No.	Lot No.(s) *(if many, attach additional page with list)*
- - ext.	, , , ,

a. In which NC river basin is the project located?	b. Name of body of water nearest to proposed project
N/A	ATLANTIC OCEAN / PAMLICO SOUND
c. Is the water body identified in (b) above, natural or manmade? ☐Natural ☐Manmade ☐Unknown	d. Name the closest major water body to the proposed project site. ATLANTIC OCEAN
e. Is proposed work within city limits or planning jurisdiction? ☐Yes ☐No	f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. PEA ISLAND WILDLIFE REFUGE

4. Site Description

a. Total length of shoreline on the tract (ft.)	b. Size of entire tract (sq.ft.)
2,400 feet	N/A
c. Size of individual lot(s) , N/A , *(If many lot sizes, please attach additional page with a list)*	d. Approximate elevation of tract above NHW *(normal high water)* or NWL *(normal water level)* ☐NHW or ☐NWL VARIES

e. Vegetation on tract

TYPICAL ROADSIDE VEGETATION

f. Man-made features and uses now on tract

NC 12 PUBLIC TRANSPORTATION

g. Identify and describe the existing land uses adjacent to the proposed project site.

PEA ISLAND WILDLIFE REFUGE

h. How does local government zone the tract?	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) ☐Yes ☐No ☑NA
N/A	

j. Is the proposed activity part of an urban waterfront redevelopment proposal? ☐Yes ☑No

k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. ☐Yes ☑No ☐NA

If yes, by whom?

l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? ☑Yes ☐No ☐NA

<Form continues on next page>

m. (i) Are there wetlands on the site?	☑ Yes ☐ No
(ii) Are there coastal wetlands on the site?	☑ Yes ☐ No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? *(Attach documentation, if available)*	☑ Yes ☐ No
n. Describe existing wastewater treatment facilities. N/A	
o. Describe existing drinking water supply source. N/A	
p. Describe existing storm water management or treatment systems. N/A	

5. Activities and Impacts

a. Will the project be for commercial, public, or private use? ☐ Commercial ☑ Public/Government ☐ Private/Community
PUBLIC TRANSPORTATION

b. Give a brief description of purpose, use, and daily operations of the project when complete.
NC 12 PROVIDES PUBLIC TRANSPORTATION ACCESS TO THE MAINLAND

c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored.
DUMP TRUCK, BULLDOZER, CRANE, & OTHER HEAVY EQUIPMENT

d. List all development activities you propose.
RESTORE NC12 THROUGH PROJECT AREA

e. Are the proposed activities maintenance of an existing project, new work, or both?
BOTH

f. What is the approximate total disturbed land area resulting from the proposed project? ☐ Sq.Ft or ☑ Acres
± 6 acres

g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of? ☐ Yes ☐ No ☑ NA
NC 12 IS PUBLIC TRANSPORTATION FACILITY

h. Describe location and type of existing and proposed discharges to waters of the state.
ROADWAY SURFACE DRAINAGE ALONG PROJECT

i. Will wastewater or stormwater be discharged into a wetland? ☑ Yes ☐ No ☐ NA

If yes, will this discharged water be of the same salinity as the receiving water? ☐ Yes ☑ No ☐ NA

j. Is there any mitigation proposed? ☐ Yes ☑ No ☐ NA
If yes, attach a mitigation proposal.

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

a. A project narrative.

b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.

c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.

d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.

e. The appropriate application fee. Check or money order made payable to DENR.

f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.

Name	Phone No.
Address PEA ISLAND WILDLIFE REFUGE	
Name	Phone No.
Address	
Name	Phone No.
Address	

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

~~[illegible]~~ 86-99

h. Signed consultant or agent authorization form, if applicable.

i. Wetland delineation, if necessary.

j. A signed AEC hazard notice for projects in oceanfront and inlet areas. *(Must be signed by property owner)*

k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 9/2/11 Print Name David S. Chang

Signature David S. Chang

Please indicate application attachments pertaining to your proposed project.

- ☑ DCM MP-2 Excavation and Fill Information
- ☐ DCM MP-3 Upland Development
- ☐ DCM MP-4 Structures Information
- ☑ DCM MP-5 Bridges and Culverts

Form DCM MP-2

EXCAVATION and FILL

(Except for bridges and culverts)

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

Describe below the purpose of proposed excavation and/or fill activities. **All values should be given in feet.**

	Access Channel (NLW or NWL)	Canal	Boat Basin	Boat Ramp	Rock Groin	Rock Breakwater	Other (excluding shoreline stabilization)
Length							370'
Width							50'
Avg. Existing Depth					NA	NA	
Final Project Depth					NA	NA	

1. EXCAVATION

☐ *This section not applicable*

a. Amount of material to be excavated from below NHW or NWL in cubic yards.

N/A

b. Type of material to be excavated.

N/A

c. (i) Does the area to be excavated include coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____

☐WL _____ ☑None

(ii) Describe the purpose of the excavation in these areas:

d. High-ground excavation in cubic yards.

N/A

2. DISPOSAL OF EXCAVATED MATERIAL

☐ *This section not applicable*

a. Location of disposal area.

N/A

b. Dimensions of disposal area.

c. (i) Do you claim title to disposal area?

☐Yes ☐No ☐NA

(ii) If no, attach a letter granting permission from the owner.

d. (i) Will a disposal area be available for future maintenance?

☐Yes ☐No ☐NA

(ii) If yes, where?

e. (i) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____

☐WL _____ ☐None

(ii) Describe the purpose of disposal in these areas:

f. (i) Does the disposal include any area in the water?

☐Yes ☐No ☐NA

(ii) If yes, how much water area is affected?

3. SHORELINE STABILIZATION

☐ This section not applicable

(If development is a wood groin, use MP-4 – Structures)

a. Type of shoreline stabilization:
☐ Bulkhead ☐ Riprap ☐ Breakwater/Sill ☑ Other: _____

b. Length: 1,600' sand bag
Width: 15'

c. Average distance waterward of NHW or NWL:
15'

d. Maximum distance waterward of NHW or NWL:
15'

e. Type of stabilization material:
Sand bag, sheet pile

f. (i) Has there been shoreline erosion during preceding 12 months?
☑ Yes ☐ No ☐ NA
(ii) If yes, state amount of erosion and source of erosion amount information.
Variable, Hurricane Irene

g. Number of square feet of fill to be placed below water level.
Bulkhead backfill _____ Riprap _____
Breakwater/Sill _____ Other 24,000 ft²

h. Type of fill material.
Sand

i. Source of fill material.
Oregon Inlet Groins AND/OR AVON Pit

4. OTHER FILL ACTIVITIES

☐ This section not applicable

(Excluding Shoreline Stabilization)

a. (i) Will fill material be brought to the site? ☑ Yes ☐ No ☐ NA
If yes,
(ii) Amount of material to be placed in the water 2,100 c.y.
(iii) Dimensions of fill area 370' x 50'
(iv) Purpose of fill
Roadway Embankment to Restore NC 12 with Stable side slope

b. (i) Will fill material be placed in coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.
☑ CW 1,500 s.f. ☐ SAV _____ ☐ SB _____
☐ WL _____ ☐ None
(ii) Describe the purpose of the fill in these areas:
~~#19~~ Roadway Embankment to Restore NC 12 with Stable Side Slope.

5. GENERAL

a. How will excavated or fill material be kept on site and erosion controlled?
Embankment stabilized with sheet piling and sand bags

b. What type of construction equipment will be used (e.g., dragline, backhoe, or hydraulic dredge)?
Crane, Bull Dozer, excavator, othe construction equipment.

c. (i) Will navigational aids be required as a result of the project?
☐ Yes ☑ No ☐ NA
(ii) If yes, explain what type and how they will be implemented.

d. (i) Will wetlands be crossed in transporting equipment to project site? ☐ Yes ☑ No ☐ NA
(ii) If yes, explain steps that will be taken to avoid or minimize environmental impacts.

9/2/11
Date

David S. Chang
Applicant Name

Repair NC 12 at Pea Island
Project Name

David S. Chang
Applicant Signature

Form DCM MP-5

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES

☐ This section not applicable

a. Is the proposed bridge:
☐ Commercial ☑ Public/Government ☐ Private/Community

b. Water body to be crossed by bridge: New inlet on Pea Island

c. Type of bridge (construction material): Temp Steel Matting bridge

d. Water depth at the proposed crossing at NLW or NWL: 10'+

e. (i) Will proposed bridge replace an existing bridge? ☐ Yes ☑ No
If yes,
(ii) Length of existing bridge: _____
(iii) Width of existing bridge: _____
(iv) Navigation clearance underneath existing bridge: _____
(v) Will all, or a part of, the existing bridge be removed? (Explain)

f. (i) Will proposed bridge replace an existing culvert? ☐ Yes ☑ No
If yes,
(ii) Length of existing culvert: _____
(iii) Width of existing culvert: _____
(iv) Height of the top of the existing culvert above the NHW or NWL: _____
(v) Will all, or a part of, the existing culvert be removed? (Explain)

g. Length of proposed bridge: 650'

h. Width of proposed bridge: 24' clear Roadway 28' total width

i. Will the proposed bridge affect existing water flow? ☐ Yes ☑ No
If yes, explain:

j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☐ Yes ☑ No
If yes, explain:

k. Navigation clearance underneath proposed bridge: Pvc 10'±

l. Have you contacted the U.S. Coast Guard concerning their approval? ☑ Yes ☐ No
If yes, explain:
No USCG permit required.

m. Will the proposed bridge cross wetlands containing no navigable waters? ☐ Yes ☑ No
If yes, explain:

n. Height of proposed bridge above wetlands: 13 ft

2. CULVERTS

☑ This section not applicable

a. Number of culverts proposed: _____

b. Water body in which the culvert is to be placed:

< Form continues on back>

c. Type of culvert (construction material):

_____

d. (i) Will proposed culvert replace an existing bridge? ☐Yes ☐No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed? (Explain)

_____

_____

_____

e. (i) Will proposed culvert replace an existing culvert? ☐Yes ☐No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or NWL: _____

(v) Will all, or a part of, the existing culvert be removed? (Explain)

_____

_____

_____

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

_____

i. Depth of culvert to be buried below existing bottom contour.

_____

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? ☐Yes ☐No

If yes, explain:

_____

_____

_____

k. Will the proposed culvert affect existing water flow? ☐Yes ☐No

If yes, explain:

_____

_____

_____

3. EXCAVATION and FILL

☐*This section not applicable*

a. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? ☐Yes ☒No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☐CW _____ ☐SAV _____ ☐SB _____

☐WL _____ ☒None

(ii) Describe the purpose of the excavation in these areas:

_____

_____

_____

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? ☐Yes ☒No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: N/A

(ii) Dimensions of the spoil disposal area: N/A

(iii) Do you claim title to the disposal area? ☐Yes ☐No *(If no, attach a letter granting permission from the owner.)*

(iv) Will the disposal area be available for future maintenance? ☐Yes ☐No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

☐CW ☐SAV ☐WL ☐SB ☐None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? ? ☐Yes ☐No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed below NHW or NWL? ☑Yes ☐No

If yes,

(ii) Avg. length of area to be filled: 210'

(iii) Avg. width of area to be filled: 50'

(iv) Purpose of fill:

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

☑CW 15006 ☐SAV ____ ☐SB ____

☐WL ____ ☐None

(ii) Describe the purpose of the excavation in these areas:

N/A

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item **d** above) to be placed on high-ground? ☐Yes ☐No

If yes,

(ii) Avg. length of area to be filled: 1,500'

(iii) Avg. width of area to be filled: 50'

(iv) Purpose of fill: Embankment and roadbed realigned/reestablished roadway.

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? ☐Yes ☑No

If yes, explain:

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

b. Will the proposed project require the construction of any temporary detour structures? ☐Yes ☑No

If yes, explain:

< Form continues on back>

c. Will the proposed project require any work channels? ☐Yes ☑No

If yes, complete Form DCM-MP-2.

d. How will excavated or fill material be kept on site and erosion controlled?

Use of Std NCDOT BMPs and erosion control measures, sand bags, sheet piling.

e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Crane, heavy highway construction equipment

f. Will wetlands be crossed in transporting equipment to project site? ☐Yes ☒No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization? ☑Yes ☐No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

9/2/11

Date

Repair NC 12 at Pea Island

Project Name

David S. Chang

Applicant Name

David S. Chang

Applicant Signature